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ABSTRACT

This Colorado statewide survey of student intentions was administered to 3,219 community college students in April 1996. The survey collected data on perceptions of goal attainment and compared shifts in intentions of students attending inner city, suburban and rural community colleges. Most respondents (79.2 percent) reported no change in their original intentions for attendance, suggesting more permanence in the goals of community college students than expected. Most students (73.6 percent) reported only one change in their original intentions. Both academic-oriented and career-oriented students who changed their intentions shifted to less-defined intentions. Career-oriented students also appeared to shift to more academic goals. Demographic, academic status, and institutional type variables were tested for significant associations with perceptions of goal attainment and shifts in intention. Cumulative credit hours completed was significant for both goal attainment and intention shifts. The findings suggest that as the number of credits completed increase, the number of intention shifts increase and perceptions of goal attainment decline. Together, these associations may provide modest evidence of the role community colleges play in assisting students to redefine and realize their goals. (Author/DM)

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DEMOGRAPHIC PROFILES:
SEGMENTING STUDENT INTENT
AT THE COMMUNITY COLLEGE

Paper Presented at the
Annual Forum of the Association for
Institutional Research

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**Jean Endo
Editor
AIR Forum Publications**

Abstract

This study reports results of a statewide survey of student intention administered to a statewide sample representative of more than 87,000 community college students in April 1996. This survey collected data on perceptions of goal attainment and reported shifts among students attending inner city, suburban, and rural community colleges. Most respondents (79.2%) reported no change in their original intentions for attendance, suggesting more permanence in the goals of community college students than might be implied from the literature. Most students (73.6%) reported only one change in their original intentions. Both academic-oriented and career-oriented students who change their intentions shifted to less-defined intentions. Career-oriented also appeared to shift to more academic goals. Demographic, academic status, and institutional type variables were tested for significant associations with perceptions of goal attainment and shifts in intention. Cumulative credit hours completed was significant for both goal attainment and intention shifts. The findings here suggest that as the number of credits completed increase, the number of intention shifts increase and perceptions of goal attainment decline. Together, these associations may provide modest evidence of the role community colleges play in assisting students to redefine and realize their goals.

Introduction

States increasingly are interested in indicators of institutional effectiveness. Indicators are perceived by legislators and public coordinating boards as a mechanism for ensuring accountability in higher education by providing comparative information to the public and prospective students. It is now estimated that twenty (20) states now either have or will soon implement indicator systems. In addition to such potential indicators as faculty productivity, assignable academic square feet on a campus, and ratio of library books to students, all indicator systems propose to measure student success. It is this definition of student success as applied to community colleges which underlies this paper.

Development of indicator systems which target student success poses unique opportunities for community colleges. On average, students who enter community colleges are unlike their counterparts at 4-year institutions along a number of dimensions including academic ability, ethnicity, and previous academic success. These differences in student characteristics between sectors can be controlled, statistically, to equate student success at community colleges to student success at 4-year colleges and universities for comparative purposes. What is not controllable, however, in the absence of more focused research, is the wider range of student intentions, or goals, found at the community college.

In 1994, the American Association of Community Colleges (AACC) published Community Colleges: Core Indicators of Effectiveness (AACC, 1994). This landmark work suggested a framework for establishing indicators which support the community college mission. The AACC framework has been warmly received by those knowledgeable about community colleges and has spurred efforts to refine indicators which can be used more fully to enhance the

community college mission. The first AACC indicator calls for measuring student intention as a foundation for determining eventual outcomes. In fact, understanding student intention as it affects individual student outcomes is the sine qua non of AACC's indicator system. The Colorado Community College and Occupational Education System (CCCOES) adapted the AACC framework and disseminated a statewide and national report (Voorhees & Cheng, 1996).

Clearly, student goal attainment cannot be understood independently from student intent. For example, it comes as some surprise to external publics that not all community college students plan to graduate with a 2-year degree and transfer to a 4-year institution. Similarly, not all graduates of Associate of Applied Science programs, those programs with a career and technical focus, intend to enter the workforce but may elect, instead, to pursue a baccalaureate degree. There is little coverage of community college student intent in either the research or management literature. Lack of understanding about student intent and the ways students move through the community college can lead to false comparisons between sectors, leading external audiences to conclude that community colleges are not effective in retention, graduation rates, transfer rates, or other measures of student success.

This paper reports results of a survey of student intention administered to a statewide sample of community college students in April 1996. The sample is representative of more than 87,000 community college students attending inner city, suburban, and rural colleges. The paper examines the associations among perceptions of goal attainment and intention shifts in relationship to gender, ethnicity, and age (demographic variables); current hours enrolled and cumulative credit hours (academic status variables); and community college type (rural v. urban).

Review of the Literature

Globally and with few exceptions (see, for example, Clagget, 1995) there is little research on community college student intention. There has been recent research, although apparently not at the community college level, directed at developing instrumentation to measure student goals (Stark, Bentley, Lowther, & Shaw, 1991). Research also has been directed at the goal instability and college adjustment (Schwitzer, Robbins, & McGovern, 1993). None of these works has considered the range of intentions which may be manifest in community college students. In contrast, Clagget (1995) drew from a survey of credit and non-credit students attending a community college to apportion students across a typology which included personal enrichers (30%), job seekers (20%), transfer preparers (19%), job upgraders (18%), and explorers (19%). Clagget's report reinforces the concept that community college students express a wider range of educational goals than their 4-year counterparts.

The profile of student intentions may vary from community college to community college and may overlap as students pursue multiple goals. In contrast, almost all students entering 4-year institutions are likely to express baccalaureate degree intentions. If one accepts the premise that intentions shape future behavior, the utility of examining the behavior of those students expressing intentions that might forecast goal attainment appears evident. Although research documenting the role of student reported intentions in forecasting community college success as measured by persistence is equivocal (see, for example, Bers and Smith, 1991; Voorhees, 1987), disregard of student intentions at the community college undercuts accurate generalizations. Two widely cited studies which have been leveraged by community college critics, but which also fail to account for differences in student intention are reviewed below.

Alba and Lavin (1981) underscore the debate about whether community college students' low rates of transfer and higher rates of dropout are attributable to negative community college influences or to the students who enter them. They compared the academic careers of students assigned to 4-year schools versus those assigned to 2-year schools in the City University of New York (CUNY), a system of commuter institutions. The students in Alba and Lavin's study first applied to CUNY's 4-year colleges; one group was granted admission, and the other was assigned to 2-year schools. The authors report that both groups held the same aspirations for the baccalaureate degree as determined by their initial application to a 4-year school and a subsequent survey. Assignment decisions were based primarily on high school grade averages. The sample was limited to those applicants whose high school averages were less than 80 percent as calculated by grades earned in college preparatory classes. The unacknowledged result is a 4-year study sample unrepresentative of the prior academic achievement of the 4-year population to which Alba and Lavin seek to generalize.

The authors report that while the groups were similar with respect to high school averages, they were unlike in high school rank. Community college assignees were significantly less likely to rank in the upper half of their high school graduating class, to have completed an equivalent number of high school preparatory classes, and to have completed an academic high school program. Socioeconomic status and minority status were not significantly different between groups although Alba and Lavin note that Catholic ethnics were overrepresented in the community college group while Jewish students were overrepresented in the 4-year college group. Both groups were characterized as from modest or low income families. Although the community college group came from families with proportionately higher incomes, between group differences were not significant.

Controlling for high school background, Alba and Lavin report that five years after entry only 40 percent of initial community college entrants had transferred to a senior college and were about 50 percent less likely than the 4-year sample to have earned a baccalaureate degree. There were, however, significant differences across community colleges. Students entering certain community colleges within the CUNY system achieved baccalaureate rates superior to students entering certain 4-year colleges. This suggests that institutions exert effects independent of student prematriculation characteristics although Alba and Lavin were unable to disentangle this effect.

Those students initially placed at a community college earned significantly fewer credits during the first three years and differed significantly from their 4-year counterparts in academic performance after the first year. By the end of the third year, some of the most academically talented community college students had transferred, suppressing subsequent average academic performance statistics at the community college. Based on the superior grades earned by the community college sample during the first two years, Alba and Lavin speculate that 4-year schools were more rigorous. Differences in grading coupled with lower rates of baccalaureate attainment, led Alba and Lavin to conclude the community college produces deleterious effects on students. Their findings, however, focus on students who were presumed to have baccalaureate intentions at the time they applied to college. Whether baccalaureate intentions endured beyond matriculation, or--if they did endure, for how long--is unknown. Students initially assigned to the community college may have redirected their goals during their studies. These findings are also now dated and do not generalize, easily, to the increasing number of part-time students at the community college.

Velez (1985) uses the NLS-72 database to determine the odds that high school seniors will earn a bachelor's degree. Using logit analysis, Velez concludes that students enrolled in

academic programs (non-vocational programs) who begin their careers at a 4-year college enjoy a 19 percent higher probability of finishing a baccalaureate than students who started in a 2-year college. This finding may be seen as damning to some community college supporters and mildly indicative of non-comparable learning outcomes between community colleges and 4-year institutions. Yet, several sampling issues may recast these findings.

First, like Alba and Lavin's study, it is not known whether 2-year college students in the sample were pursuing a bachelor's degree after they entered the community college. Degree aspirations were sampled during respondents' senior year of high school and not after that. Also unknown is the number of high school seniors within the sample who intended to begin their career at the community college and later transfer to a 4-year college in pursuit of a bachelor's degree. Student intentions can be expected to change as result of interactions with the collegiate environment and can lead to behavior which is different from that originally predicted. Changing student goals coupled with the heterogeneous range of student intentions found at the community college are factors which can influence outcome studies but are usually overlooked.

Methodology

A questionnaire was developed and administered to a random sample of classes representing 5 percent of available classes across community colleges which are part of the statewide system of eleven community colleges in Colorado during late April 1996. The universe of classes included evening and day classes in traditional academic areas as well as career and technical classes. This sampling scheme yielded 3,219 usable responses.

The survey instrument was designed to capture perceptions of goal attainment, initial student intention, and intention at the time of the survey (labeled "post-enrollment intentions" below). Part of the mythology of community colleges is that their students change their reasons for attendance on a frequent, if not random, basis. These shifts, according to critics of the

community college, lead to role confusion and inconsistent pursuits of multiple goals. In this study, original student intentions--those goals expressed by respondents as representing their intentions upon entry to the institution--are contrasted with their post-enrollment intentions. The survey instrument also attempted to determine whether students perceived they had met their goals at the end of the term in which the survey was administered. Chi-square tests were run to test for the associations between demographic factors (gender, age, and ethnicity), academic status (cumulative credits completed and credits enrolled in the current term), institutional type (rural v. urban) and perceptions of goal attainment and shifts in student intention. Only statistically significant results are discussed below.

Limitations

This study admittedly suffers from its one-shot, case study approach. That is, until other research verifies or dispels the analysis presented here, this study's findings should be interpreted in only a preliminary sense. These results await replication. Secondly, the technique of sampling random classes should not be interpreted as producing the same effect as a random sample of students. The former was judged to be more efficacious to maximize response rates. A mail out of survey questionnaires undoubtedly would have produced a lower response rate and perhaps would have introduced systematic bias within the final sample as presumably those disaffected or pleased with the institution may have been more likely to respond than those with neutral attitudes. Third, the survey was administered late in the semester, indeed, late in the academic year. Utilizing persistence across time as an indicator of success, therefore, it could be said that the students in this study were successful. In fact, this group may be more successful than those who left the institution either during the term in which the survey was administered or before. A fourth limitation is a lack of student identification code on the survey instrument, negating the possibility of merging the resulting data with other databases, such as academic history, to confirm or deny survey responses.

Analysis

Table 1
Sample v. CCCOES Student Characteristics

	Population %	Sample %
Gender		
Male	42.1	38.2
Female	57.9	61.8
Age ¹		
16-25	41.9	51.9
26-35	26.9	24.4
36-55	28.4	22.6
Above 55	2.8	1.2
Ethnicity		
American-Indian	1.6	2.1
Black	5.9	5.3
Asian/Pacific Islander	3.5	4.8
Hispanic	14.2	16.1
White	74.7	71.7

Table 1 depicts differences between the system-wide sample and all CCCOES students in the Fall of 1995. Females were overrepresented in the sample (61.8% v. 57.9%). The sample was somewhat younger than the system population, but varied little with respect to ethnicity. The distribution of primary class-taking times was: regular, daytime (63.0%), evening (32.4%), and weekend (4.6%). Finally, almost all respondents (90.0%) indicated they were either satisfied or very satisfied with their college.

¹The demarcations for age categories are slightly different between the population and sample profiles. Data in the population column correspond to the following categories: less than 24, 25-34, 35-54, 55 or above.

Perceptions of Goal Attainment

Among the demographic, academic status, and institutional type variables tested for associations with perceptions of goal attainment, age $\chi^2(4, N=3,029) = 24.38, p<.0001$, cumulative credit hours $\chi^2(3, N=2,502) = 163.17, p<.0001$, and the number of current enrolled hours $\chi^2(4, N=2,984) = 30.01, p<.001$ were significant. Younger students were more likely to indicate that they met their goals in the current term; 56.7 percent of the “met goal” group was under 26-years old. Additionally, students who had earned more total credit hours or whose current enrolled hours were higher were more likely to indicate they had met their goals in the current term. There were no statistically significant differences between rural and urban community colleges in their students’ perceptions of goal attainment.

Persistence and goal attainment. Persistence decisions can be heavily influenced by perceptions of goal attainment. Students who perceive that they have satisfied their intentions can be expected either not to return to the institution or to develop new goals. Thirty percent (30.1%) of the respondents indicated they would meet their goal in the term they were surveyed while 69.9 percent indicated otherwise. A substantial proportion (63.2%) of the “unmet goal” group indicated they would continue at their current college while 12.8 percent were unsure. Predictably, uncertainty about continuing at the college was nearly double (23.9%) among the “met goal” group. The associations between persistence intentions and perceptions of goal attainment and number of intention shifts were also examined. Only the relationship for perceptions of goal attainment $\chi^2(2, N=3,002) = 819.28, p<.0001$ was statistically significant. This suggests that goal shifting--by itself--is not a negative factor in persistence decisions.

More than two-thirds (64.7%) of the non-continuing students indicated they had either reached their goals or were transferring to another college. Another 10.6 percent expressed voluntary departure intentions including going to work, military service or participating in a

religious mission. A nearly corresponding proportion (9.7%) expressed reasons which were involuntary in nature including financial concerns, medical reasons, personal or family problems, no child care, or grade or GPA reasons. Only a small proportion of leavers (4.5%) indicated dissatisfaction with the college as their reason for departure.

Shifts in Student Intention

Original intentions. Nearly two-thirds (66.4%) of the respondents report that their original goal was to earn a certificate or degree or to transfer to a 4-year institution. About one in five (21.7 %) entered the college to prepare for a job or improve their current job skills and just more than one in ten (11.9 %) indicated they first came to the college for personal interest or other purposes. A surprisingly high percentage (79.3%) of respondents indicated that these original goals had not changed at the time of the survey.

Post-enrollment intentions. Among those who indicated they had changed their goals (20.7% of the sample, or 656 students), about three-fourths (73.6%, or 406 students) changed their goals only once (Table 2). Less than three percent of those who had changed their goals (or 0.4% of the survey's total respondents, n=13) reported that they had changed their original goal more than four times.

Table 2
Number of Reported Intention Shifts

Shifts	Number	Percent
One Time	406	73.6
Two Times	96	17.4
Three Times	37	6.7
Four Times or More	13	2.4

Chi-square tests were executed to identify significant associations between the number of intention shifts and demographic variables (gender, age, and ethnicity), academic status variables

(cumulative hours and current enrolled hours), and college type (urban V. rural). With the exception of cumulative credits completed $\chi^2(3, N=3,002) = 33.70, p < .0001$, no statistically significant relationships were observed.

Table 3 depicts overall shifts among the 656 students who indicated a change in goals. These data are remarkable if only because they suggest relatively little change in the overall distribution of student intention. With the exception of an observed migration toward the “Other” category, one might examine these data and conclude that no shifts occurred, except in the direction of the “other” category. This conclusion, however, may be unwarranted since these data are not arrayed in a manner which indicates which types of students may have shifted their intentions. The multi-response nature of the questionnaire also creates a measurement artifact which defies easy generalization as students are distributed across several intention categories both in the “original column” and again in the “post-enrollment” column.

Table 3
Overall Intention Shifts

Intention	Original %	Post-Enrollment %
Associate degree	33.0	31.5
Certificate	10.5	9.9
Courses for transfer	22.4	21.5
Prepare for job/career	15.3	10.5
Existing job skills	6.2	6.8
Personal interest	9.9	8.0
Other	2.7	11.9

With these cautions in mind, Table 4 depicts shifts among those academically-oriented students (those who originally expressed associate degree, certificate, and/or transfer intentions).

Table 5 displays shifts among the career-oriented students (those who originally expressed job

preparation and/or improvement in existing job skills)². These data confirm the earlier supposition that when student intentions shift, they shift to goals which are perhaps less focused and more diffuse. Additionally, the academically oriented shifters moved away from the associate degree category while the career-oriented students moved toward the “associate degree” and “courses for transfer categories” and, remarkably, away from the “prepare for a job/career” category. It would appear, at least within this statewide sample, career-oriented goal shifters migrate toward goals which are more academic in scope. These shifts are reinforcing of the community college’s role as a place where new intentions and goals can be incubated.

Table 4
Intention Shifts Among Academically-Oriented Students

Intention	Original %	Post-Enrollment %
Associate degree	38.1	30.9
Certificate	12.1	10.3
Courses for transfer	25.9	23.4
Prepare for job/career	12.0	10.7
Existing job skills	3.4	5.5
Personal interest	7.1	7.0
Other	1.5	12.3

²Career-oriented students also may be included in the academically-oriented category. However, given decided occupational emphasis within “prepare for job/career” and “existing job skills” goal categories, it was decided not to disentangle those students with career-orientations from the “Associate degree” category.

Table 5
Intention Shifts Among Career-Oriented Students

Intention	Original %	Post-Enrollment %
Associate degree	18.6	27.2
Certificate	7.7	7.9
Courses for transfer	11.4	16.9
Prepare for job/career	35.3	14.2
Existing job skills	14.3	11.6
Personal interest	11.1	11.3
Other	1.7	10.9

Table 6
Summary of Chi-Square Tests

Variables	Association	χ^2	df	p
Age	Met Goals	24.38	4	.0001
Ethnicity	Met Goals	6.89	4	.1415
Gender	Met Goals	1.37	1	.2414
Credits Enrolled	Met Goals	30.01	4	.0000
Cumulative Credits	Met Goals	163.17	3	.0000
Continuing at the College	Met Goals	819.28	2	.0000
Institutional Type	Met Goals	0.00	1	.9892
Age	Shifted Goals	2.39	4	.6647
Ethnicity	Shifted Goals	6.60	4	.1586
Gender	Shifted Goals	.21	1	.6467
Credits Enrolled	Shifted Goals	5.78	4	.2163
Cumulative Credits	Shifted Goals	33.70	3	.0000
Continuing at the College	Shifted Goals	3.44	2	.1790
Institutional Type	Shifted Goals	.87	1	.3522

Variables associated with intention shifts. Among the study variables (gender, age, ethnicity, cumulative credit hours, current hours enrolled, continuing at this college, and institutional type) only cumulative credit hours were significantly related to student intention shifts $\chi^2 (3, N=2604) = 33.70, p<.0001$ (Table 6). This finding, in tandem with the significant relationship between cumulative credit hours and perceptions of goal attainment suggest that students who earned more credit hours have more choices in establishing new goals as they gain more experience in the college setting. Among the students who had changed their initial goals, 35.6% completed more than 46 credits. Among the students who indicated they would meet their goals in the current term, and 45.4 percent completed more than 46 credits. These findings suggest that the more credits completed (and the longer the enrollment history) the more likely that intentions change and new goals are formulated.

Conclusions

To those accustomed to viewing community college students as “trying out college”, the preliminary results here may be disquieting. One picture emerging from this study is that of relatively stable student intentions at the community college. Although, as discussed earlier, the students sampled here were successful in the context of their longevity as students; little is known about intention shifts among those who departed the institution. A next step might be to survey those students who dropped out or stopped out to determine their perceptions of goal attainment and intention shifts.

The connection between age and perceptions of goal attainment presented here also are worthy of further investigation. Younger students indicate a higher level of goal attainment which suggests that goals held young students may be more short-term or focused than those held by their counterparts. Another explanation might be that older students on average only enroll on

a part-time basis and, accordingly, were accustomed to viewing their goals from a longer time perspective. This is plausible, given the positive relationship between current credit hours enrolled and perceptions of goal attainment. There also may be a connection between perceptions of goal attainment and age which merits study at the community college.

Whereas students appear to meet their goals as longevity at the college increases, they also appear more likely to shift goals as a result of longevity. The message here is twofold. First, community colleges appear to fulfill their function as students move through institutions. In particular, students whose intentions do not shift after entry, most of the students in this study, and who have accumulated more credit hours than their counterparts, are more likely to believe they have met their goals. Second, those students whose intentions do shift--about 20 percent of the students in this study--are more likely to have earned more cumulative credits. This indicates that intention shifts can be seen as the result of prolonged experience and interactions within institutions and perhaps not, as some might view, the result of choices made early in a collegiate career. Rather, the findings reported here suggest that choices may only become clear after the lapse of time and exposure within the institution.

The migration of students with career-oriented intentions toward academically-oriented intentions observed here is of note. In general, students also moved toward the "other" category, suggesting a wider dispersion of intention shifts than was captured by the questionnaire. Since intention shifts were associated significantly with cumulative hours, a potential explanation may be that the career-oriented students with short-term classes and programs had already met their goals and were unavailable to survey. Nonetheless, movement toward the academic area by intention-shifters with longevity in the institution ought to be of concern to administrators, faculty, and researchers.

A final issue may be the stability of intentions as viewed by students over time. It may be that as students converge on a particular goal, for instance, that they do not recall earlier intention shifts. Studies in this area might ideally be designed to trap student intentions at entry and then provide a subsequent measurement of whether those original intentions were met at a later date. At best, students' recollection of their original intentions in this study may be clouded by time or by other factors. With refinement, future studies in this area may have much to contribute to the development of indicator systems and deeper understandings of student experiences within community colleges.

References

- Alba, R. D. and Lavin, D. E. (1981). Community colleges and tracking in higher education. Sociology of Education 43: 223-237.
- American Association of Community Colleges (1994). Community Colleges: Core Indicators of Effectiveness. (AACC Special Reports No. 4). Washington, D.C.: AACC.
- Bers, T. H., and Smith, K. E. (1991). Persistence of community college students: The influence of student intent and academic and student integration. Research in Higher Education 32: 539-556.
- Clagett, C. A. (1995). Student goal analysis for accountability and marketing. Community College Review 16: 38-41.
- Schwitzer, A. M., Robbins, S. B., and McGovern, T. V. (1993). Influences of goal instability and social support on college adjustment. Journal of College Student Development 34: 21-25.
- Stark, J. S., Bentley, R. J., Lowther, M. A., and Shaw, K. M. The student goals exploration: reliability and concurrent validity. Educational and Psychological Measurement 51: 413-422.
- Velez, W. (1985) Finishing college: The effects of college type. Sociology of Education 58: 191-200.
- Voorhees, R. A. (1987). Toward building models of community college persistence: A logit analysis. Research in Higher Education 26: 115-129.
- Voorhees, R. A., and Cheng, D. X. (1996, May) Community college indicators of institutional effectiveness. Presentation to the Thirty-sixth Forum of the Association for Institutional Research, Albuquerque, NM.



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